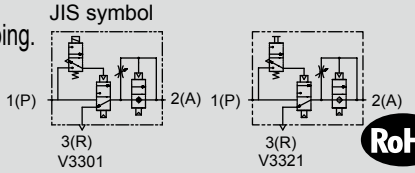
Slow start valve Standard White Series

V3301-W/V3321-W Series

Ensuring safety when starting and stopping.

● Port size: Rc1/4 to Rc1/2

JIS symbol



RoHS CAD

Specifications

Item		V3301-W/V3321-W		
Actuation		Pilot operated soft spool valve		
Working fluid		Compressed air (excluding ultra-dry compressed air) *1		
Working pressure MPa		0.2 (≈29 psi, 2 bar) to 1.0 (≈150 psi, 10 bar)		
Proof pressure MPa		1.5 (≈220 psi, 15 bar)		
Ambient / fluid temperatures °C		5 (41°F) to 60 (140°F)		
Port size	1(P)/2(A) port	Rc1/4	Rc3/8	Rc1/2
	3(R) port	Rc3/8		
	Gauge port	Rc1/4		
Effective cross-sectional area mm²	Lo speed air supply	6		
	Hi speed air supply	40	64	76
	Hi speed exhaust	50	74	78
Response time		0.2 sec or less		
Lubrication		No lubrication *2		
Weight g		V3301-W:635 V3321-W:515		
Solenoid valve specifications		**V3301-W**		
Rated voltage V		100 AC (50/60 Hz)	200 AC (50/60 Hz)	24 DC
Starting current A		0.076/0.058	0.038/0.030	0.092
Holding current A		0.038/0.029	0.019/0.015	
Power consumption W		2.2/1.7	2.2/1.7	2.2
Temperature rise K		40 or less		
Voltage fluctuation range		±10%		
Insulation class		Class B		
Electrical connections		Grommet lead wire/terminal box		

*1: Consult with CKD when using ultra dry compressed air.
*2: Use turbine oil Class 1 ISO VG32 for lubrication.

How to order

● Solenoid valve **V3301 - 08 - W** (White type) **- ○ ○ - 1 - BW**

● Manual type **V3321 - 08 - W** **BW**

Ⓐ Port size
Ⓑ Manual operation
Ⓒ Electrical connections
Ⓓ Voltage
Ⓔ Other attachments

Option weight

* Add to the weight of the standard accessories. Unit: kg

Code	Attachment		
	BW	G49P	S
V3301	0.17	0.086	0.015
V3321	0.17	0.086	0.015

⚠ Select the reverse regulator (R*100-W) or reverse filter regulator (W*100-W) when installing the V3301-W, V3321-W onto the primary side of the regulator or filter regulator.

Specifications for rechargeable battery (Catalog No. CC-1226A)

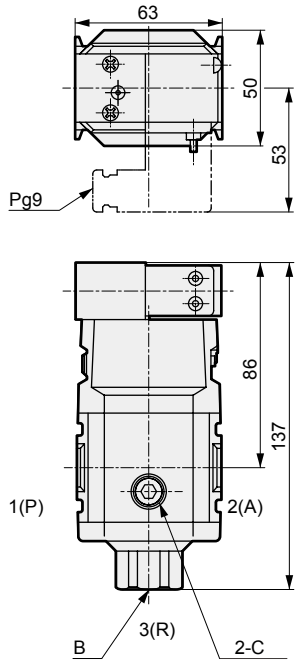
● Structure compatible with rechargeable battery manufacturing process

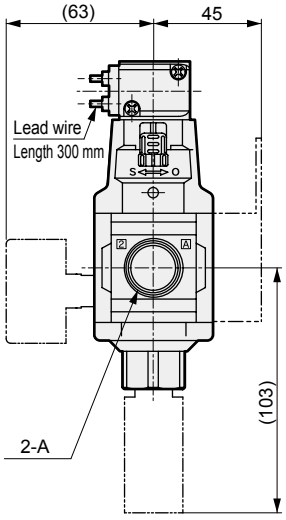
V3301 - ..... - P4*

Code	Description	
Ⓐ Port size		
1(P)/2(A) port		
08	Rc1/4	
10	Rc3/8	
15	Rc1/2	
Ⓑ Manual operation		
Blank	Non-locking	
M1	Locking	
Ⓒ Electrical connections		
Blank	Grommet lead wire	
S	Grommet lead wire with surge suppressor	
B	Terminal box	
LS	Terminal box surge suppressor/light	
Ⓓ Voltage		
1	100 VAC 50/60 Hz	Standard
2	200 VAC 50/60 Hz	
3	24 VDC	Option
4	12 VDC	
5	110 VAC 50/60 Hz	
6	220 VAC 50/60 Hz	
Ⓔ Other attachments		
Blank	No included products	
BW	C type bracket	
G49P	Pressure gauge: G49D-8-P10	
S	Silencer	

Dimensions

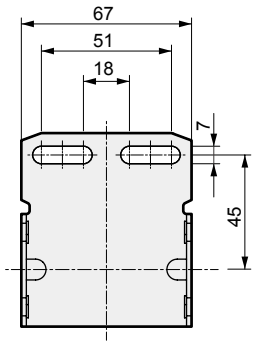
● V3301-W



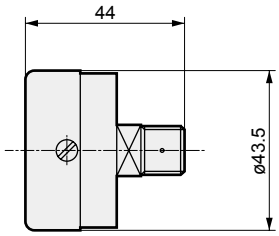


	A	B	C
V3301-08-W	Rc1/4	Rc3/8	Rc1/4
V3301-10-W	Rc3/8		
V3301-15-W	Rc1/2		

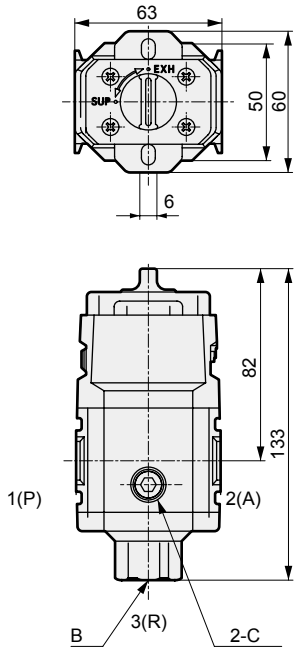
● Bracket: B320

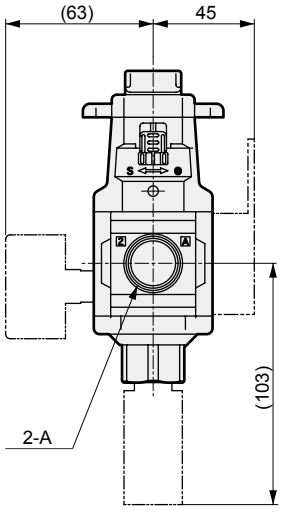


● Pressure gauge: G49D-8-P10



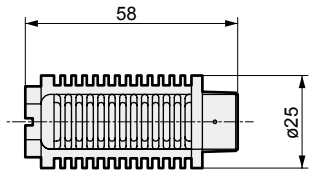
● V3321-W





	A	B	C
V3321-08-W	Rc1/4	Rc3/8	Rc1/4
V3321-10-W	Rc3/8		
V3321-15-W	Rc1/2		

● Silencer: SLW-10A



Operational explanation (refer to the operation characteristics)

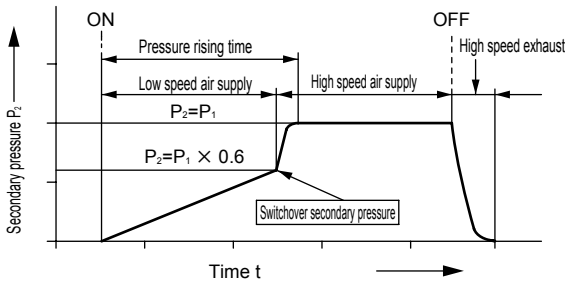
The slow start valve turns ON when the solenoid valve is energized or the manual section is set to SUP. The valve turns OFF when the solenoid valve is deenergized or the manual section is set to EXH.

(1) First, when the body is turned ON, the low speed supply path opens and compressed air starts to flow to the secondary side, as secondary pressure gradually rises. Secondary pressure gradually starts to rise. Operable cylinders start moving at a low speed and do not pop out.

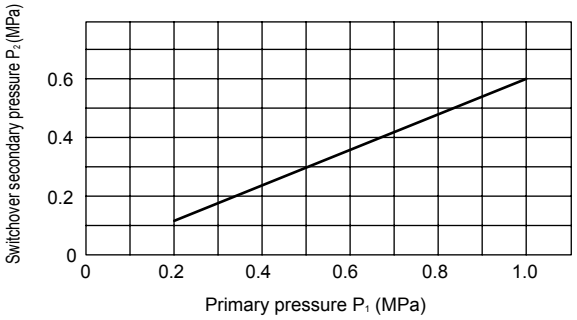
(2) Next, when secondary pressure exceeds 60% of primary pressure, the high speed supply path opens. Secondary pressure suddenly rises to the same pressure as primary pressure. (Fully open state)

(3) When the body is turned OFF, high speed exhaust starts and residual pressure in the unit is exhausted.

● Operation characteristics



● Switchover secondary pressure



Adjustment method of slow start (refer to the side view)

(1) Press up the slide key and release the adjusting nut lock.

(2) Turn the body ON, and confirm cylinder operation speed and secondary pressure rise time. Turn the body OFF.

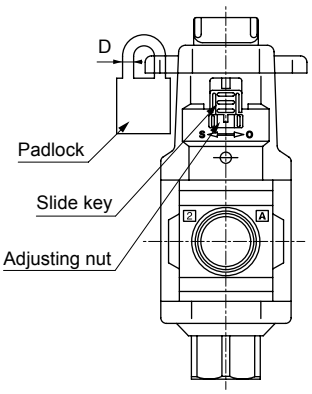
(3) Adjust by turning the adjusting nuts as indicated below. Cylinder pops out → Turn to the S side
Low speed operation time is too long → Turn to the O side
Repeat steps (2) and (3) as necessary, and adjust to the ideal state.

(4) Align the adjusting nut keyway to the projection on the slide key.

(5) Press down the slide key and lock the adjusting nut.

(6) Confirm that the body is OFF.

● Side view



⚠ Safety precautions

*1: This valve is specifically designed to start and stop a device. This valve should not be used for cylinder repeat operation or as a normal 3-way valve.

*2: The min. working pressure of the cylinder must be less than 50% of working pressure in order to be effective in preventing the popping out.

*3: The manual override is locked with a manual valve. Select a padlock with a D dimension of 3.8 to 5.8 mm.

*4: Connect a silencer or exhaust filter, etc., on the exhaust port for safety and noise reduction.

*5: This valve may not switch to high speed supply if air is consumed or air leakage is found at the OUT side during slow speed supply.

*6: Make sure to work on the adjusting nut manually.

*7: Keep the working pressure (supply air pressure at 0.4 MPa or higher when the restricting component is near full opening during slow air supply. Otherwise, the supply air pressure may decline and the unit may not switch to the exhaust.